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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,810	03/04/2005	Nicholas James Midgley	GB920020049US1	8811
26502	7590	07/02/2010	EXAMINER	
IBM CORPORATION IPLAW SHCB/40-3 1701 NORTH STREET ENDICOTT, NY 13760			TAHA, SHAQ	
			ART UNIT	PAPER NUMBER
			2446	
			NOTIFICATION DATE	DELIVERY MODE
			07/02/2010	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

endiplay@us.ibm.com

Office Action Summary

Application No.

10/526,810

Applicant(s)

MIDGLEY, NICHOLAS JAMES

Examiner

SHAQ TAHA

Art Unit

2446

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 04/19/2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 63 - 77 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 63 - 77 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/CD)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

In view of the appeal brief filed on 04/19/2010, PROSECUTION IS HEREBY REOPENED. New grounds of rejections are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

Response to Arguments

Applicant's arguments with respect to claims 63 - 77 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 73 - 77 are directed to nonstatutory subject matter because Claims 73 – 77 recite "A computer program product", wherein based on broadest reasonable interpretation, the computer program product which appears to be none one of the four statutory categories under 35 U.S.C. ~ 101, i.e., process (method), machine (apparatus), manufacture (product), or composition of matter.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 63 - 77 are rejected under 35 U.S.C. 103(a) as being unpatentable over Swildens et al. (US 2010/00005175) in view of Wilson et al. (US 7,570,587)

Regarding claims 63, 68, and 73, a method for allocating an additional real application server to an existing pool of real application servers, said pool including a first real application server having an application installed therein and communicating with a real data source server to obtain application data from said data source server, said additional application server having said application installed therein, **[Each POP 110, 120 contains a plurality of Web cache servers 112A-112D, 122A-122D, wherein web cache server 112A is the first real application server of pool 110 that is stores content, wherein the content is from an origin server which is the real data source server as shown in Fig. 1, (Swildens et al., Paragraph 25)],**

the method comprising the steps of: a real management server for the pool receiving performance data for said first real application server, **[The resource manager 209 maintains an accurate picture of the states and status for all resources in the servers including the bandwidth, disk utilization, and CPU utilization, wherein the resource manager 209 as shown in Fig. 2, will receive performance data from real application servers, (Swildens et al., Paragraphs 83 & 85)],**

and performance data for the real data source server, **[the system monitors the status and performance of each distributed computing server, (Swildens et al., Paragraph 18)],**

the real management server, based on the performance data for the real application server and performance data of the real data source server, automatically determining that said first real application server is functional but has reached a

predetermined upper level of utilization, **[Provisioning manager 207 interacts with load-balancing manager 204 to decide if the application load has reached a certain customer service agreement threshold level and to decide if it is time to add a new server for this particular application, wherein a customer service agreement threshold represents a server that reached a pre determined upper level of utilization, (Swildens et al., Paragraph 98)],**

the performance data for the real data source server indicating an amount of utilization of the real data source server in providing application data to one or more of the real application servers in the pool, **[The load balancing manager 204A-204B feeds up to date information regarding the utilization of resources to the resource manager 209. The resource manager 209 knows which server is used and which server is idle, wherein the load balancer will send utilization information regarding every server in the system including data source server 105, (Swildens et al., Paragraph 42)],**

and in response to the determination that the first real application server is functional but has reached a predetermined upper level of utilization, the real management server automatically identifying said additional real application server as having said application but not currently allocated to said pool, **[Provisioning manager 207 consults with resource manager 209 to obtain the best suitable resource. The resource could be a server 203A that was previously used for the same service with the application image already at the server 203A, wherein the real**

management server 209 will identify a suitable server to be the additional server allocated to the pool, (Swildens et al., Paragraph 98)],

the real management server automatically selecting the real data-source server to provide application data to the additional real application server, **[If the application image is not on the server 203A, then the provisioning manager 207 makes a request to the image distribution manager 206 to distribute the application image to the selected server 203A, wherein once the newly allocated server is added to the pool and if it doesn't have the application the real data source server 105 of fig. 1 will send it the application, (Swildens et al., Paragraph 104)],**

Swildens et al. fails to explicitly teach automatically sending connection settings for the real data-source server to the additional real application server to configure the additional real application server to send subsequent requests for application data to the real data-source server,

Wilson et al. teaches that this step would consist of setting the connection map of the cross-connect 102 so that the appropriate external circuit-switched port is connected to the appropriate internal circuit-switched port, **(Wilson et al., Col. 6, lines 50 – 55),** for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold, **(Wilson et al., Col. 3, lines 23 – 30),**

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Swildens et al. by sending connection settings for the real data-source server to the additional real application server, **(Wilson et al., Col. 6, lines**

50 – 55), for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold, **(Wilson et al., Col. 3, lines 23 – 30).**

Regarding claims 65, 70, and 75, the method further comprising the subsequent steps of: based on subsequent performance data of said first real application server, said real management server determining that said first real application server is functional but under utilized such that said first real application server is no longer needed in said pool, **[Another other major benefit of this approach is that under light traffic, many servers will not get utilized at all, (Swildens et al., Paragraph 41)],**

and in response, said real management server automatically de-allocating said first real application server from said pool, **[content is deployed to more servers as demand for the content grows and the content is removed from those servers as demand shrinks, (Swildens et al., Paragraph 6)].**

Regarding claim 66, 71, and 76, the method wherein a multiplicity of copies of said application are installed in a respective multiplicity of said real application servers in said pool, **[When the application program is installed and the server is provisioned, it moves to the ready state 604 and awaits activation, (Swildens et al., Paragraph 90)].**

Regarding claims 67, 72, and 77, the method wherein: in response to the step of said real management server automatically determining that said first real application server is functional but has reached a predetermined upper level of utilization, further comprising the step of said real management server automatically sending to said additional real application server a description of an installation path for said real data source server to support communication with said additional real application server, **[The system manager 305 installs the customer application program image 304 on the server 307 and executes the application, (Swildens et al., Paragraph 107)]**.

Regarding claims 64, 69, and 74, Swildens et al. teaches the method wherein: in response to the step of said real management server automatically determining that said first real application server is functional but has reached a predetermined upper level of utilization, **[Provisioning manager 207 interacts with load-balancing manager 204 to decide if the application load has reached a certain customer service agreement threshold level and to decide if it is time to add a new server for this particular application, (Swildens et al., Paragraph 98)]**,

Swildens et al. fails to teach that said real management server automatically sending to said additional real application server, port settings for said real data source server to communicate with said real data source server to obtain application data from said real data source server,

Wilson et al. teaches that this step would consist of setting the connection map of the cross-connect 102 so that the appropriate external circuit-switched port is connected

to the appropriate internal circuit-switched port, **(Wilson et al., Col. 6, lines 50 – 55)**, for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold, **(Wilson et al., Col. 3, lines 23 – 30)**,

It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Swildens et al. by automatically sending to said additional real application server, port settings for said real data source server, **(Wilson et al., Col. 6, lines 50 – 55)**, for allocating resources from the resource pool to satisfy the connection request if the usage level of the pool is below an occupancy threshold, **(Wilson et al., Col. 3, lines 23 – 30)**.

Remarks

Applicant is encouraged to define and detail the installation path by explaining the sending of the port settings and connections settings of claim 67.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Shaq Taha** whose telephone number is 571-270-1921. The examiner can normally be reached on 8:30am-5pm Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Jeff Pwu** can be reached on 571-272-6798.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S. T./

Examiner, Art Unit 2446

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2446